

C
N819uZd
1910/11

1911-1912

NORTHWESTERN UNIVERSITY BULLETIN

CHICAGO—EVANSTON

GENERAL CATALOGUE OF THE DENTAL SCHOOL



FEB 1 1917

NORTHWESTERN UNIVERSITY BUILDING
LAKE AND DEARBORN STREETS
CHICAGO

VOLUME X

JUNE 28, 1910

NUMBER 20

Northwestern University

¶ THE COLLEGE OF LIBERAL ARTS, located at Evanston, in an ideal college community, offers special preparation for the professions, and for pursuits requiring broad training.

¶ THE MEDICAL SCHOOL is one of the oldest, largest, and best equipped. Seven hospitals are open to students. Clinic material is abundant.

¶ THE LAW SCHOOL, the oldest law school in Chicago, offers unexcelled library facilities and special courses that prepare for immediate practice in any state upon graduation.

¶ THE COLLEGE OF ENGINEERING has its own building just completed, beautifully situated, a model of efficiency. Offers courses in all branches of Engineering. Technical studies in a University environment.

¶ THE SCHOOL OF PHARMACY offers a scientific training in Pharmacy, Chemistry, and Drug and Food Analysis. Special courses for Drug Clerks.

¶ THE DENTAL SCHOOL offers expert training in theory and practice. Facilities are unsurpassed. Its clinic is the largest in the world.

¶ THE SCHOOL OF MUSIC affords a scientific preparation for music as an accomplishment and a profession. It is located at Evanston.

¶ THE SCHOOL OF COMMERCE provides instruction in economics, elementary and corporation finance, commercial law and accounting. Many lecturers from business and professional life.

¶ EVANSTON ACADEMY prepares for college, for engineering, for professional schools, and for business.

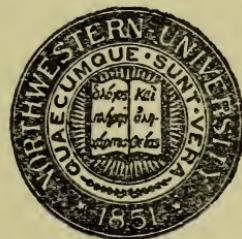
Northwestern University Bulletin

CHICAGO — EVANSTON

GENERAL CATALOGUE

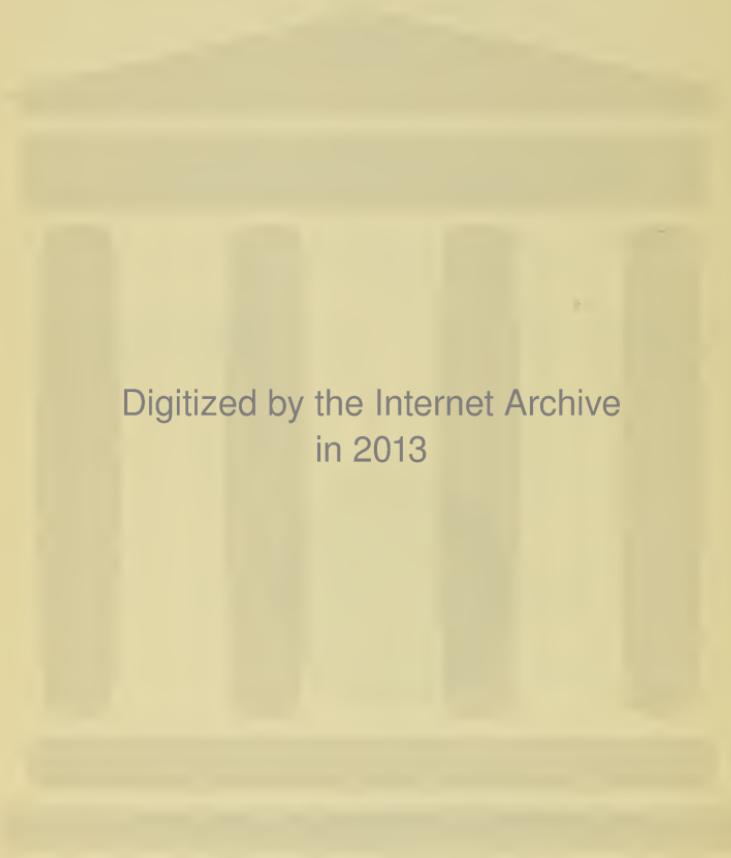
OF THE

DENTAL SCHOOL



NORTHWESTERN UNIVERSITY BUILDING

Lake and Dearborn Streets
CHICAGO



Digitized by the Internet Archive
in 2013

NORTHWESTERN UNIVERSITY

President, ABRAM WINEGARDNER HARRIS, LL.D.

OFFICERS BOARD OF TRUSTEES.

WILLIAM DEERING, *Honorary President.*

WILLIAM FRASER McDOWELL, D.D. President
OLIVER HARVEY HORTON, LL.D. First Vice-President
HUMPHREYS HENRY CLAY MILLER, A.M. Second Vice-President
JAMES A. PATTEN. Third Vice-President
FRANK PHILIP CRANDON, A.M. Auditor and Secretary
JOHN RICHARD LINDGREN. Treasurer
WILLIAM ANDREW DYCHE, A.M. Business Manager

GENERAL EXECUTIVE COMMITTEE.

M. COCHRANE ARMOUR.	JOHN RICHARD LINDGREN.
WILLIAM L. BROWN.	WILLIAM FRASER McDOWELL.
FRANK PHILLIP CRANDON.	GEORGE P. MERRICK.
WILLIAM DEERING.	H. H. C. MILLER.
WILLIAM A. DYCHE.	JOSIAH J. PARKHURST.
HENRY HOWARD GAGE.	JAMES A. PATTEN.
ABRAM WINEGARDNER HARRIS.	IRWIN REW.
OLIVER H. HORTON.	CHARLES P. WHEELER.
MILTON HOLLYDAY WILSON.	

CALENDAR

1910

October 4-14	Examination of credentials for admission.
October 4	School opens.
October 7-16	Examinations for advanced standing.
November 23	Thanksgiving.
December 22	Last day of school before Christmas.

1911

January 3	First day of school after Christmas vacation.
January 26	Mid-term examinations begin.
February 2	First Semester and mid-term examinations end.
February 3	Second Semester begins.
February 12	Lincoln's Birthday.
February 22	Washington's Birthday.
May 22	Senior examinations begin.
May 29	Junior and Freshman examinations begin.
May 30	Memorial Day.
June 13	Home coming Alumni Clinic.
June 14	Commencement.
June 15	Practitioners' summer course begins.
July 12	Last day of practitioners' course.

NORTHWESTERN UNIVERSITY DENTAL SCHOOL

FACULTY.

1910-11.

ABRAM WINEGARDNER HARRIS, Sc.D., LL.D., *President.*

GREENE VARDIMAN BLACK, M.D., D.D.S., Sc.D., LL.D., *Professor of Operative Dentistry, Pathology, and Bacteriology, Dean.*

CHARLES RUDOLPH EDWARD KOCH, D.D.S., *Lecturer on Dental Economics; Secretary.*

THOMAS LEWIS GILMER, M.D., D.D.S., *Professor of Oral Surgery.*

Professor of Special Pathology, Materia Medica and Therapeutics.

EDMUND NOYES, D.D.S., *Professor of Dental Jurisprudence and Ethics.*

JAMES HARRISON PROTHERO, D.D.S., *Professor of Prosthetic Technics, Prosthetic Dentistry, and Metallography.*

FREDERICK BOGUE NOYES, A.B., D.D.S., *Professor of Histology.*

TWING BROOKS WIGGIN, M.D., *Professor of Physiology and Pathology.*

GEORGE AMOS DORSEY, Ph.D., *Professor of Comparative Anatomy.*

CHARLES LOUIS MIX, A.M., M.D., *Professor of Anatomy.*

IRA BENSON SELLERY, D.D.S., *Professor of Orthodontia.*

HARRY MANN GORDIN, Ph.D., *Professor of Chemistry.*

ARTHUR DAVENPORT BLACK, B.S., M.D., D.D.S., *Assistant Professor of Operative Dentistry, and Assistant in Oral Surgery.*

EUGENE SHAW WILLARD, D.D.S., *Assistant Professor of Operative Dentistry and Bacteriology.*

FRED WILLIAM GETHRO, D.D.S., *Assistant Professor of Operative Dentistry and Dental Anatomy.*

HARRY ISAAC VAN TUYL, B.S., M.D., D.D.S., *Assistant Professor of Anatomy.*

GEORGE C. POUNDSTONE, *Assistant Professor of Special Pathology, Materia Medica, and Therapeutics.*

HERBERT ANTHONY POTTS, M.D., D.D.S., *Lecturer on Anaesthesia, and Assistant in Oral Surgery.*

NORTHWESTERN UNIVERSITY

INSTRUCTORS.

JAMES WILLIAM BIRKLAND, D.D.S., *Clinical Instructor in Operative Dentistry.*

GEORGE BUCHANAN MACFARLANE, D.D.S., *Clinical Instructor in Operative Dentistry.*

HUSTON FRENCH METHVEN, D.D.S., *Instructor in Prosthetic Dentistry.*

BENJAMIN WALDBERG, D.D.S., *Superintendent of Prosthetic Laboratory.*

Assistant in Histology.

J. D. BLACKWELL, D.D.S., *Demonstrator in Charge of Examining Room.*

HILLIS TALLEY BROWN, D.D.S., *Demonstrator in Anatomy.*

MICHAEL JOSEPH BUCKLEY, D.D.S., *Special Demonstrator in Orthodontia and Operative Dentistry.*

CHAUNCY W. COURTRIGHT, M.D., *Demonstrator in Anatomy.*

ASHLEY MARTIN FIRKINS, D.D.S., *Demonstrator in Operative Dentistry.*

Demonstrator in Operative Dentistry.

MORRIS GROSSMAN, D.D.S., *Demonstrator in Dental Anatomy and Operative Technics.*

WALTER ROBERT HOST, D.D.S., *Demonstrator in Prosthetic Dentistry.*

GLEN THOMAS MARTIN, PH.C., *Assistant in Chemistry.*

CLAYTON FRANK BLOOMFIELD STOWELL, D.D.S., *Demonstrator in Extracting.*

HENRY ROBERT TAECKER, D.D.S., *Demonstrator in Operative Dentistry.*

Demonstrator in Operative Dentistry.

THE Dental School was founded and is maintained for the purpose of preparing young men and women in the most thorough manner for the practice of dentistry, and for the promotion of dental science and dental literature. No expense has been spared in its equipment and in the employment of an adequate faculty of skilled teachers, and a large force of demonstrators and assistants.

The Dental School was organized in 1887 and three years later became a department of the University. In 1896 it absorbed the American College of Dental Surgery and for some years occupied the building on Franklin and Madison Streets, Chicago, formerly occupied by that school. It is now located in Northwestern University Building, at the corner of Lake and Dearborn Streets, Chicago.

It occupies the upper three floors of the building and has over 60,000 square feet of floor space, supplied with modern equipment.

The Clinic Room is sufficient in extent to accommodate the great clinic and the offices connected with it, it is of the best design of construction, consisting of a single room with arched ceiling. It is on the sixth floor, with free light on two sides and abundant skylight. It may be reached by elevators from the principal entrance on Lake Street, and from a smaller entrance on Dearborn Street. Adjoining the Operative Clinic is the Prosthetic Clinic, and on the same floor is the senior Prosthetic laboratory for crown and bridge work; the recently added laboratory for porcelain and cast metal inlay work; an impression room; two rooms and waiting room for extracting. The system of lecture rooms, three in number, is arranged on the amphitheater plan. Each accommodates 225 students. Two are for the ordinary class lecture work, and one for the Oral Surgery clinic. This latter has a waiting-room for surgical patients, a room for diagnosis and the preparation of patients, and a recovery room with sufficient beds for the temporary care of patients. Other rooms are the Anatomical laboratory, which is placed well apart, the first year and the second year Prosthetic laboratories, the Operative Technic laboratory, the first year and the second year Chemical laboratories, the laboratory for Histology and Bacteriology, the photographic laboratory, the museum, the reading room and library.

The location of the school is especially advantageous in obtaining the great number of clinical patients needful in a dental school, it being in the transportation center of over three millions of people living within a radius of forty miles, any of whom can reach the University building in one hour.

REQUIREMENTS FOR ADMISSION.

The candidate may be admitted to this school upon presenting a diploma or equivalent certificate from an accredited high school or kindred educational institution, or upon passing a satisfactory examination. The diploma must be signed by a superintendent of schools, or the principal of a high school, or other responsible school officer. A certificate showing that a candidate has been graduated from an accredited high school, or from a school giving an equivalent course, signed

by a city or county superintendent of schools, or by a state superintendent of public instruction, will be accepted as the equivalent of a diploma. A candidate who does not present a diploma or certificate must take an examination before a state superintendent of public instruction, or his deputy, and bring a report showing that the candidate has a preliminary education equivalent to that to be obtained in an accredited high school.

The deputy state examiners, appointed by the Illinois state superintendent of public instruction, are Mr. Peter A. Downey, Room 546, Cook County Court House, and Mr. W. E. Watt, 358 Dearborn Street, Chicago. A candidate coming from another state may, if more convenient, take his examination before the state superintendent of instruction, or deputy, in his own state.

Students are not admitted to the regular course of study later than ten days after the opening of the school, unless necessarily detained by illness, certified to by the attending physician, and in this case they are not admitted later than twenty days after the opening of the school. Special students, not candidates for a degree, are received at any time and allowed to select the studies they prefer.

Students registering agree thereby to accept the discipline imposed by the Faculty.

It is desirable that students should register early, since the order of assignment of seats in the lecture halls is based upon the order of registration.

CANDIDATES FOR ADVANCED STANDING.

Students from high schools and colleges wishing credit for courses parallel to courses required in this school, should bring credentials showing specifically the time spent on these subjects and should present their note books written in these courses.

Candidates for advanced standing must present certificates from recognized Dental Schools, and are credited with work done, as shown by their certificate, if satisfactory to the dean of this school and to the professor of the department concerned.

Students conditioned in studies of the course, and eligible under the faculty rules, may take examinations for advanced standing in October.

Graduates of recognized medical schools are credited with one year.

REQUIREMENTS FOR GRADUATION.

The degree of Doctor of Dental Surgery is conferred upon those candidates not less than twenty-one years of age, of good moral character, who have completed satisfactorily the required courses of study and have passed the examinations thereon, and have completed all technical and practical laboratory and clinical requirements. No student will be recommended for a degree who has not been a member of this school during the whole of the last or senior year, or who has not done a full year's work in this school. The standing of students is

based upon examinations, reports of attendance, quizzes and infirmary practice.

No student will be recommended for a degree until all financial obligations to the University shall have been discharged.

LENGTH OF COURSE.

The course covers three years. Each year begins on the first Tuesday in October and closes on the Commencement Day of the University, the second Wednesday in June following. There are thirty-two weeks of actual instruction given, six days in each week.

If, for any cause, a regular student desires to extend his studies over a period of four or more years, a course of studies will be especially arranged for him.

The calendar will be found on inside front cover.

FEES AND EXPENSES.

The annual fees in force for the year 1910-11 are as follows:

FIRST YEAR.

Matriculation Fee	\$ 5.00
Tuition	150.00
Anatomy Ticket	5.00
Breakage Fee	1.00
	<hr/>
	\$161.00

SECOND YEAR.

Registration Fee	\$ 5.00
Tuition	150.00
Anatomy Ticket	5.00
Breakage Fee	1.00
	<hr/>
	\$161.00

THIRD YEAR.

Registration Fee	\$ 5.00
Tuition	150.00
Breakage Fee	1.00
Final Examination	15.00
	<hr/>
	\$171.00

SPECIAL DEPOSITS.

A deposit of \$5.00 in the Chemical and of the same amount in the Histological laboratory, is required of Freshman and Junior students. These deposits are required before students can be admitted to the laboratories for work or instruction in these departments. The amounts will be returned at the end of the school year, less the charge for materials or apparatus lost or damaged, while in the care of the student.

TIME WHEN PAYMENTS OF FEES ARE DUE.

The registration fee must accompany the application for matriculation.

Tuition and the anatomical and breakage fees are payable at the beginning of the school year, and not later than October 20th.

The final examination fee, for Seniors, is payable at the beginning of these examinations, and before the candidates for graduation can be admitted to them.

The Tuition Fee may, at the option of the student, be paid in two or three installments. If paid in two installments, \$78.00 must be paid not later than October 20th, and \$75.00 on February 20th. If paid in three installments, \$55.00 must be paid not later than October 20th, \$50.00 on January 20th and \$50.00 on April 20th.

STUDENTS' EXTRA FUNDS.

Students who bring with them larger amounts of funds, than their immediate requirements necessitate, may deposit the same in the University business office, in the rotunda on first floor, and draw on this deposit from time to time as needed.

STUDENTS' LOCKERS.

Lockers for the keeping of students' instruments, engines and extra garments are furnished at a rental of 50 cents per annum. Each student is required to furnish padlocks of his own for his lockers.

RETURN OF FEES.

Fees are not returned to students who are suspended or dismissed or absent for any cause except illness, and then only as a special concession by the Trustees.

HOW PAYMENTS SHOULD BE MADE.

Payments should be made in currency or in Chicago exchange, drawn to the order of the Secretary of Northwestern University Dental School.

ROOMS AND BOARD.

Rooms and board may be obtained in neighborhoods convenient to the school at \$4.00 to \$6.00 a week. Rooms without board, furnished or unfurnished, may be had at \$6.00 to \$10.00 a month.

A department of the Y. M. C. A. is maintained in our University Building, which looks especially to the students' interest in this direction.

In case students are compelled to do some outside work to assist them while attending school, this department will also endeavor to secure such employment as the student may be able to do without detriment to his educational work.

FRESHMAN SCHEDULE, 1909-1910

Hours	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:30 to 9:30						
9:30 to 10:30	Prosthetic Technics	Prosthetic Technics	Prosthetic Technics	Histological Laboratory Sec. 1	Histological Laboratory Sec. 2	Study Hours
10:30 to 11:30				Anatomical Laboratory Sec. 2	Anatomical Laboratory Sec. 1	Gordin Chemistry 2
11:30 to 12:30	Wiggin Physiology 2	Mix Anatomy 2	Prothero Prosthesis 1	Noyes Histology 1	Wiggin Physiology 2	Mix Anatomy 2
1:30 to 2:30	Gethro Dental Anat. Op. Technics	Quiz or Reading Room 1	Gordin Chemistry 2	Chemical Laboratory In Sections 1 to 5:30	Chemical Laboratory In Sections 1 to 5:30	Reading Room
2:30 to 5:30	Operative Technics	Operative Technics	Operative Technics			Reading Room

The figures in right hand corner indicate the lecture room

JUNIOR SCHEDULE, 1909-1910

8:30 to 9:30	Noyes Histology	Van Tuyl Anatomy	Poundstone Materia Med.	Mix Anatomy	Mix Anatomy	A. D. Black Op. Dentistry
9:30 to 10:30	Histological Laboratory Sec. 1	Anatomical Laboratory Sec. 2		Prothero Prosthesis	Prothero Special Clinic	Methven
10:30 to 11:30	Histological Laboratory Sec. 2	Anatomical Laboratory Sec. 1				
11:30 to 12:30	Histological Laboratory Sec. 1	Anatomical Laboratory Sec. 2	Wiggin Physiology	Wiggin Pathology	Clinic	Clinic
1:30 to 2:30	Gordin Chemistry	Gordin Chemistry	A. D. Black Op. Dentistry	MaWhinney Clinic		
2:30 to 5:30	Clinic or Chemical Laboratory	Clinic or Prosthetic Laboratory	A. D. Black Clinic or Prosthetic Laboratory	or Prosthetic Laboratory	Clinic or Prosthetic Laboratory	Clinic

SENIOR SCHEDULE, 1909-1910

Lecture Room No. 2

8:30 to 9:30	MaWhinney Dental Path. and Thera.	Gilmer Oral Surgery	E. Noyes Ethics & Jurisp	MaWhinney Dental Path. and Therap.	A. D. Black Quiz Oral Surgery	Sellery Orthodontia
9:30 to 10:30	Koch Economics	Prothero Prosthesis	Black Op. Dentistry	Willard	Diagnosis Oral Surgery	Black Op. Dentistry
10:30 to 12:30	Clinic	Bacteriol. Laboratory Sec. 1	Bacteriol. Laboratory Sec. 2	Clinic	Gilmer Oral Surgery	Clinic
1:30 to 5:30	Macfarlane	Clinic	Clinic	Birkland	Clinic	
					MacWhinney Birkland	Clinic
						Birkland

Lecture Room No. 1

A change of some subjects in the Junior and Senior classes are made at the end of the first semester. The schedule for 1910 to 1911 will be practically the same.

COURSE FOR GRADUATES AND PRACTITIONERS.

The course opens on June 15, 1911, and continues four weeks, with six days of teaching each week. It includes two hours of lectures and six hours of practical teaching each day, by members of the regular staff of the School. Especial attention is given to porcelain and gold inlays, crowns, bridge work of all kinds, the treatment of pyorrhœa, and the most recent methods in Operative Dentistry, Oral Surgery, and Orthodontia. The studies for 1911 are:

Operative Dentistry—Professor G. V. Black, assisted by Professor A. D. Black, and others.

Histology, as Applied to Operative Dentistry—Professor Frederick B. Noyes.

—————*Oral Surgery*—Professor Gilmer and assistants.

—————**Materia Medica, Special Pathology and Therapeutics*—Professor—————

Prosthetic Dentistry—Professor Prothero and assistants.

Orthodontia—Professor Sellery.

Certificates are given to those who complete the course.

POST-GRADUATE COURSE.

LECTURE SCHEDULE.

Hours.	Monday.	Tuesday.	Wednesday.
8:30- 9:30		Gilmer	Sellery
9:30-10:30	Prothero	Black	Prothero
Hours.	Thursday.	Friday.	Saturday.
8:30- 9:30		Sellery	A. D. Black
9:30-10:30	Black	Noyes	Prothero

Oral Surgery Clinic by Dr. Gilmer, Friday, 10:30-12:30.

The class will work in Laboratory and Clinic the other hours until 5:30 p. m. each day.

PRACTITIONERS' COURSE FEES.

Registration	\$ 5.00
Tuition for one subject.....	45.00
Tuition for two or three subjects.....	60.00
Tuition for entire course.....	70.00

Graduates of the Dental School are allowed a reduction of 20 per cent from these fees.

For further information relating to the Dental School, address The Secretary, Northwestern University Dental School, Chicago, Illinois.

*This subject includes diseases of the soft parts as of the pulp, abscesses, diseases of the gums, etc., as met with in the practice of operative dentistry.

METHODS OF INSTRUCTION.

The studies of the course are grouped by departments, the work of each department proceeding from the more general and fundamental subjects to the more specialized and advanced.

The work in the departments is planned with reference to that of other departments, and the greatest care is taken that the whole shall be so correlated that the student in taking up a new subject will find himself prepared by work done in other departments.

SCHEDULE OF COURSES.

Students are expected to take the courses in the order enumerated, but some deviation from this rule may be allowed in cases approved by the Faculty.

Each of the departments is presented under the headings as given in the table below, separately and completely, and in alphabetical order, and courses are described fully in the order of the letters.

FIRST YEAR WORK.

	Page.
Anatomy a, b, c, d.....	14
Chemistry a, b, c, d.....	15
Histology a, b, c.....	17
Operative Technics c, d, e, f, g, h.....	19
Dental Anatomy a, b.....	19
Physiology a, b, c, d.....	17
Prosthetic Technics a, b, c, d, e.....	24

SECOND YEAR WORK.

Anatomy e, f, g.....	14
Chemistry e, f, g, h.....	15
Histology d, e, f, g.....	17
Materia Medica and Therapeutics a, b, c.....	22
Operative Dentistry i, j.....	19-20
General Pathology a, b.....	18
Physiology e, f.....	18
Prosthetic Dentistry f, g, h, i.....	25

THIRD YEAR WORK.

Ethics, Jurisprudence, and Dental Economics a, b.....	16
Comparative Anatomy a.....	15
Operative Dentistry k, l, m, n, o, p.....	20
Bacteriology q, r.....	20
Oral Surgery a, b, c, d, e, f.....	21
Anaesthesia g, h, i.....	21
Orthodontia a, b, c.....	23
Special Pathology and Therapeutics d, e, f, g, h.....	22-23
Prosthetic Dentistry j, k, l.....	25

DEPARTMENTS OF INSTRUCTION

ANATOMY.

PROFESSOR MIX, PROFESSOR VAN TUYL, DR. BROWN, AND ASSISTANTS.

The equipment of the department of anatomy is complete. The large Anatomical Laboratory, on the top floor of the building, is well lighted on the east and south by numerous windows, and in the center of the room by a large skylight. The ventilation is perfect. The equipment includes thirty-six dissecting tables of the latest pattern, of metal with plate-glass tops. The floor is water-proof and has such drainage that it can be flooded with hose and kept thoroughly clean. Skeletons are provided for the use of the students. On payment of a small deposit bones may be taken for home study.

FIRST YEAR.

- a. *Visceral Anatomy, Introductory Course*—First third of first semester. Two lectures and demonstrations a week. Professor Mix.
- b. *Human Dissections*—One three-hour period a week. Professor Mix, Professor Van Tuyl, Dr. Brown, Dr. Courtright, and assistants.
- c. *Anatomy of the Extremities*—Two lectures a week. Professor Mix.
- d. *Recitations on Lectures and Dissections*—Two hours a week. Professor Van Tuyl and assistants.

SECOND YEAR.

- e. *The Head and Neck*—Two lectures a week. Professor Mix.
- f. *Human Dissections*—Two three-hour periods a week. Professor Mix, Professor Van Tuyl, Dr. Brown, Dr. Courtright and assistants.
- g. *Recitations on Dissections*—Two hours a week. Professor Van Tuyl.

CHEMISTRY.

PROFESSOR GORDIN AND ASSISTANTS.

The Chemical Laboratories, exclusively for dental students, are large, well ventilated, and complete in every respect. One laboratory is devoted to General Chemistry and Qualitative Analysis, another is arranged with special reference to the experimental teaching of Metallurgy and to other practical applications of chemistry of interest to dental students. In addition to the main laboratories, there are large dispensing rooms, a balance room well equipped with balances and apparatus for testing the physical properties of metals, amalgams, etc., and a room covered with a hood for carrying off fumes, and equipped for alloying, assaying, and refining.

FIRST YEAR.

a. *General and Inorganic Chemistry*—Lectures and recitations. First semester. Two hours a week. Professor Gordin.

b. *Chemical Laboratory*—Illustrative experiments in General and Inorganic Chemistry. First semester. Six hours a week. Professor Gordin and assistants.

c. *General and Inorganic Chemistry*—Lectures and recitations. Second semester. Two hours a week. Professor Gordin.

d. *Laboratory*—The metals and their compounds. Qualitative chemical analysis of unknown mixtures, particularly bases and alloys. Second semester. Six hours a week. Professor Gordin and assistants.

SECOND YEAR.

e. *Organic Chemistry*—Lectures and quizzes. Two hours a week. Professor Gordin.

f. *Laboratory*—Quantitative chemical analysis of dental alloys, etc. Refining of gold, silver, and other metals. Laboratory study of cements and other filling materials. Assay of dental alloys for gold, silver, tin, platinum. Practical problems of dental chemistry. First semester. Three hours a week. Professor Gordin and assistants.

g. *Laboratory*—Illustrative experiments in Organic Chemistry. Analysis of saliva. Urine analysis. Second semester. Three hours a week. Professor Gordin and assistants.

COMPARATIVE DENTAL ANATOMY.

PROFESSOR DORSEY.

[*Note*.—In the absence of Professor Dorsey this year the subject will be presented by Assistant Professor Stowell.]

It is the design of the department to give in a concise form a view of the animal kingdom and its classifications, especially of the vertebrates, the forms of teeth in relation to food habits, and as weapons of offense and defense; a study of the extinct species of animals of the several classes, variations in tooth forms, illustrating development through the geological ages; the history of the changes from the simple forms to the complex forms now existing. The Museum of the Dental School is especially rich in skulls of the several orders of the animal kingdom, and furnishes illustrations for the study of all of the known tooth forms. The great collection of the Field Columbian Museum is available for illustration and study.

THIRD YEAR.

a. *Evolution*—The meaning of similarity of structure; natural selection; changes in organs; correlation of growth between parts; principles of heredity and of fixity of species; tooth forms; definitions and descriptions of the varieties of forms; the typical mammalian dentition; classification of the animal kingdom, with concise descriptions of the typical characteristics of each. First semester. Two lectures a week. Professor Dorsey.

PROFESSIONAL ETHICS, DENTAL JURISPRUDENCE, AND ECONOMICS.

PROFESSOR EDMUND NOYES AND DR. KOCH.

This work consists of a brief statement of the important principles of morals; an exposition of the special duties and moral obligations of professional men to their patients, their fellow practitioners, and the public, the more important contrasts between the proper ethical standard of the professions and those of business or manufacturing pursuits.

The lectures on Jurisprudence follow, in the main, the text-book by Dr. Rehfuss, and include qualification and duty of expert witnesses, the importance of dental records, the limitations of dental practice, the qualifications required and the liabilities incurred, the penalties that may be suffered, and the defense to be made in case of alleged malpractice; the law respecting the practice of dentistry, the steps necessary to become legal practitioners, and the duties and liabilities of dentists with reference to the law.

THIRD YEAR.

a. *Ethics*—Elementary principles of ethics; professional ethics; state laws relating to dentistry; Illinois dental law; dental jurisprudence; general review. First semester. One lecture a week. Professor Edmund Noyes.

b. *Dental Economics*—This course was established to equip the increasing number of students without previous preceptorship in a dental office with a knowledge of the business side of dental practice. The work embraces practice building, methods of obtaining and retaining patients, business relations between the dentist and his patients, fees, accounts, records of operations, presentation and collection of accounts, methods of economy in the conduct of an office. Second semester. One lecture a week. Dr. Koch.

HISTOLOGY.

PROFESSOR FREDERICK B. NOYES AND ASSISTANTS.

The department is provided with a large laboratory, fitted with seventy-one hardwood desks, each furnished with reagents, lockers, a compound microscope with lenses and condensers, electric lights, and other conveniences for preparation of specimens and microscopic study. It is provided also with a stereopticon and projecting microscope for demonstration purposes. Adjoining this large laboratory, there are a professor's study, and preparation laboratory with a photographic room fully equipped with all necessary apparatus.

The laboratory classes are usually divided into sections of not more than fifty students. This work has been greatly aided by a large collection of lantern slides from photo-micrographs and framed photographic prints; and by a large histological museum containing sets of

microscopic slides sufficient in number on any given subject for a full section of the class, illustrating not only all the ordinary soft tissues, but also the periodental membranes, dental pulp, periosteum, and ground sections of the teeth. These microscopic slides and sections, together with those stained and mounted by the students, are used by the classes for purposes of study.

FIRST YEAR.

a. *Lecture Course*—The construction and the use of the microscope. A study of cell structure and functions, of the elementary tissues; histology of the organs; circulatory, lymphatic, alimentary tract, and accessory glands, respiratory system, urinary organs, and skin. One lecture a week. Professor Frederick B. Noyes.

b. *Laboratory Course*—A laboratory study of the subjects of the lecture course. One three-hour period a week. Professor Frederick B. Noyes and assistants.

c. *Quizzes and Recitations*—One hour a week.

SECOND YEAR.

d. *The Dental Tissues*—Enamel; the periodental membranes; periosteum; bone; mucous membranes and other soft tissues of the mouth. One and two-thirds semesters. One lecture a week. Professor Frederick B. Noyes.

e. *Embryology*—A short course. One lecture a week. One-third of a semester. Professor Frederick B. Noyes.

f. *Laboratory Course*—A laboratory study of the subjects of lecture courses d and e. One three-hour period a week. Professor Frederick B. Noyes and assistants.

g. *Quizzes and Recitations*—One hour a week.

PHYSIOLOGY.

PROFESSOR WIGGIN.

The work in Physiology includes a course of two lectures a week and text-book study with quizzes, in the first year; in the second year the subject is continued, one lecture a week, devoted mainly to the brain, nervous system, and the functions of reproduction.

FIRST YEAR.

a. *General Physiology*—The structure of the elementary tissue; the chemical composition of the body; the blood; the circulation of the blood. First semester. Two lectures a week. Professor Wiggin.

b. *Quiz Class Work*—In sections. First semester. Two hours a week.

c. *Respiration*—Secretion; food digestion; metabolism; nutrition and diet; animal heat; excretion; muscle; nerve physiology; production of voice. Second semester. Two lectures a week. Professor Wiggin.

d. *Quiz Class Work*—In two sections. Second semester. Two hours a week.

SECOND YEAR.

e. *The Central Nervous System*—Brain; spinal cord; reproductive organs; development. Lectures and recitations. One hour a week. Professor Wiggin.

f. *Quiz Class Work*—In sections. Two hours a week.

GENERAL PATHOLOGY.

PROFESSOR WIGGIN.

This course is essential to the student's understanding of general pathological conditions, and forms the basis of his studies of the special pathology of the tissues of the teeth, the membranes of the teeth; the correlated tissues, and the organs of the mouth.

SECOND YEAR.

a. *Etiology of Disease*—Disorders of nutrition and metabolism; diabetes; fever; general circulatory disturbances; local hyperemia; local anemia; hemorrhage; embolism; infarction; thrombosis; retrogressive processes; atrophy; infiltrations and degenerations; necrosis; inflammation; progressive tissue changes; neoplasms; infections; granulomata; bacteria, and diseases caused by them. Lectures and recitations. One hour a week. Professor Wiggin.

b. *Quiz Class in Sections*—Second semester. Two hours a week.

OPERATIVE DENTISTRY, PATHOLOGY AND BACTERIOLOGY.

PROFESSOR GREENE V. BLACK, PROFESSORS ARTHUR D. BLACK, WILLARD, GETHRO, DRs. BIRKLAND AND MACFARLANE AND ASSISTANTS.

Operative Dentistry in some of its forms is presented to the student from the time he enters the school to his graduation.

In the first year he makes a study of the human teeth, or dental anatomy, of the forms and nomenclature of the instruments used in operations on the teeth, of the preparation of cavities for filling, of filling materials and their manipulation.

The second year includes a lecture course with demonstrations on the technical procedures in filling teeth, and the student begins practical operations in the clinic room.

The third year includes a review of the technical procedures in filling operations, followed by a careful study of the pathology of dental caries, and the adaptation of means to its amelioration and cure.

The Clinic Rooms, built especially for the purpose, have abundant room with the best of light. They are well equipped with Columbia operating chairs in ample number for the classes.

The Operative Infirmary Clinic is under the direct supervision of the Professor of Operative Dentistry. The student begins this work

with the opening of his second year and continues it to the end of the third year; the time given to it is much greater in the third year than in the second. It is the intention that this infirmary practice shall be as much like an actual dental practice as possible. The development of the ability to obtain and hold a practice, or the professional courtesy of an operator toward his patient essential to personal success, is regarded equal in importance to the development of manipulative ability.

DENTAL ANATOMY.

FIRST YEAR.

a. *Descriptive Anatomy of the Human Teeth*—Nomenclature. First semester. One lecture or recitation a week. Professor Gethro.

b. *Laboratory Course*—Studies of the forms of individual teeth; carving the tooth forms in bone or ivory; dissections and studies of the internal parts—pulp chambers and root canals. First semester. Nine hours a week. Professor Gethro and Dr. Grossman.

OPERATIVE TECHNICS.

c. *Instruments and Instrumentation*—A study of instrument forms, instrument construction, and the adaptation of instruments to the excavation of cavities. First third of second semester. One lecture a week. Professor Gethro.

d. *Laboratory Course*—First third of second semester. Nine hours a week. Professor Gethro and Dr. Grossman.

e. *Cavity Nomenclature*—A study of the location of cavities in extracted teeth, of the forms of prepared cavities, of the naming of internal parts of cavities, and of the use of instruments in their preparation. Second third of second semester. One lecture a week. Professor Gethro.

f. *Laboratory Course*—Second third of second semester. Nine hours a week. Professor Gethro and Dr. Grossman.

g. *Filling Materials and Filling Teeth*—Third third of second semester. One lecture a week.

h. *Laboratory Practice*—Filling materials and filling prepared cavities; extracted teeth, ivory, or bone. Third third of second semester. Nine hours a week. Professor Gethro and Dr. Grossman.

SECOND YEAR.

i. *Technical Procedures in Filling Teeth*—Cavity nomenclature; cavity preparation; principles, instruments and appliances, and instrumentation; cavity preparation, by classes of cavities; filling materials; instruments and instrumentation, physics of filling operations, and of finishing fillings. Porcelain inlays; preparation of cavities; formation of matrix; making and inserting inlays; gold inlays. Filling with amalgam, cements, gutta-percha. Exposure and removal of dental pulp. Preparation and filling of root canals. Two lectures and recitations a week. Professor A. D. Black.

j. *Operative Clinic*—Open to second year students four hours a day during the entire season. Operations amounting to one hundred points required in gold, and one hundred points in amalgam. Professor A. D. Black and assistants.

THIRD YEAR.

k. *Review of Technical Procedures in Filling Teeth*—First half of first semester. Two lectures a week. Professor G. V. Black.

l. *Pathology and Dental Caries*—Bacteriology of human mouth; causative relation of bacteria to dental caries. Caries of enamel; caries of dentin; inception and progress of dental caries; conditions of the beginning of caries; systematic causes of caries; susceptibility and immunity to caries; vital phenomena in caries; hyperaesthesia of dentin; treatment of dental caries, curative effects of fillings, selection of filling materials. Second half of first semester. Two lectures a week. Professor G. V. Black.

m. *Management of Patients*—Cleanliness; evil habits in chewing food, and their correction; management of special conditions. Caries of children's teeth and its treatment; shedding of the deciduous teeth. Management of children. Erosion; management of cases of erosion; management of cavities by classes; extension for prevention and its limitations. Management in special conditions. Ästhetic considerations. Second semester. Two lectures a week. Professor G. V. Black.

n. *Quizzes and Recitations*—One hour a week. Professor Willard.

o. *Operative Clinic*—Open to third year students from 10:30 to 5:30 daily during term time. Operations amounting to two hundred points are required in gold, and two hundred points in amalgam. Professor G. V. Black and assistants.

p. *Special Fillings*—Fillings are made under the instruction and immediate supervision of the special clinical instructors, and later full written descriptions of the conditions indicating the operation, the instrumentation and choice of instruments used, are submitted for grading as to excellence. Dr. Macfarlane and Dr. Birkland.

BACTERIOLOGY.

A combined lecture, recitation, and laboratory course. The equipment includes culture ovens, sterilizers, conveniences for handling test tubes and for making culture media.

THIRD YEAR.

q. *Principles of Bacteriology*—The preparation of culture media; management of laboratory cultures; distinguishing varieties of micro-organisms in laboratory cultures; physiology of micro-organisms; poisons produced by micro-organisms; diseases caused by micro-organisms, particularly those of the teeth and mouth; susceptibility and immunity to diseases. One lecture a week. Professor Willard.

r. *Laboratory Work*—Preparation of culture media; planting and management of cultures; separation of species in mixed cultures; de-

riving pure cultures from infected animals; cultures from saliva, from mucous membranes and from carious teeth; staining, mounting, and microscopic studies; diagnosis of unknowns. Three hours a week. Professor Willard.

ORAL SURGERY.

PROFESSOR GILMER, PROFESSOR ARTHUR D. BLACK, DR. POTTS, AND ASSISTANTS.

The Course embraces instruction in the general principles of surgery and in the practical application of surgery to pathological conditions occurring in or about the mouth and face, giving special attention to diagnosis and recognition of conditions.

The subject of Anaesthetics and Anaesthesia is presented in detail in lectures, in experiments on animals, in the clinic, in the oral surgery and daily in the extracting clinic. Nitrous oxide is used generally in the extracting clinic, and ether and chloroform in the oral surgery clinic. Local anaesthesia is exhibited frequently in either clinic in cases to which it is adapted.

THIRD YEAR.

a. *Surgical Bacteriology*—Inflammation; suppuration; wounds; hemorrhage; necrosis; caries of bones; diseases of the maxillary sinus; resection of roots; tetanus; ankylosis; arthritis; facial neuralgia; fractures; dislocations; extraction of teeth; malposition of third molars; impacted teeth; replantation, transplantation, and implantation of teeth; cleft palate and harelip; affections of the lips, tongue, and mouth; tumors; odontomes; ranula; cysts; aneurisms. One lecture a week. Professor Gilmer.

b. *Recitations and Quizzes*—One and one-half hours a week. Professor Arthur D. Black.

c. *Surgical Clinic*—Two hours a week throughout the year. Professor Gilmer, nurses from St. Luke's Hospital, and Dr. Potts.

d. *Special Clinical Instruction*—Diagnosis and case histories. One hour a week. Professor Arthur D. Black.

e. *After Treatment of Surgical Cases*—By students, under direction of Professor Gilmer.

f. *Clinic in the Extraction of Teeth, Daily*—Open to second and third year students. Dr. Stowell.

g. *The Evolution of General Surgical Anaesthesia*—State of the patient; nature of operation; choice of anaesthetic; prolonged dental operations; circumstances of administration; inspection and examination of patients; general anaesthetic agents; local and regional anaesthetics, dangers of anaesthesia. Second semester. One hour a week. Dr. Potts.

h. *Clinical Administration of Anaesthetics*—Oral surgery clinic. Two hours a week. Dr. Potts.

i. *Clinical Exhibition of Nitrous Oxid Anaesthesia*—Daily in extracting clinic. Dr. Stowell.

MATERIA MEDICA SPECIAL PATHOLOGY AND THERAPEUTICS.

PROFESSOR POUNDSTONE AND ASSISTANTS.

Materia Medica is taught in a series of lectures, quizzes, and recitations, with demonstrations and experimental studies. There is also a laboratory study of the most useful methods of preparing drugs for medicinal purposes, with experimental studies of their therapeutic or toxic action. The course is richly illustrated throughout. Abundant practice is given in prescription writing. The great clinic, to which students have access throughout the year, gives large opportunity to witness the application and therapeutic effects of drugs, and to obtain clinical practice. The instructor is in the clinic one afternoon each week to assist and direct the demonstrating force.

SECOND YEAR.

a. *The Sources and Various Forms of Drugs*—General and local action of drugs; agencies that modify the action of drugs; the art of prescribing medicines; a critical study of about one hundred drugs, classified according to their therapeutic and toxic action; a special laboratory study of escharotics, germicides, antiseptics, deodorizers. Systematic medication for dental purposes; dental prophylaxis; the use of germicides, antiseptics, escharotics, and astringents in dentistry. First semester. One lecture a week. Second semester. Two lectures a week. Professor Poundstone.

Lectures and Recitations—Professor Poundstone.

b. *Theses*—Each student is required to write ten theses, of not less than three hundred words each, on subjects assigned.

c. *Clinical Practice*—The Infirmary is open to second year students four hours a day for the observation of conditions requiring the use of drugs and for clinical practice in their treatment. Each student is required to make one hundred points in clinical experience. See also Department of special Pathology and Therapeutics. Professor _____ and assistants.

SPECIAL PATHOLOGY AND THERAPEUTICS.

PROFESSOR _____

In dental practice this is a department of operative dentistry. It includes a study of the diseases and the abnormal conditions of the pulps of the teeth, of the membranes of the teeth, of the immediate surrounding soft tissues and bones, and the mucous membranes of the mouth.

THIRD YEAR.

d. *A Review of the Structure and Functions of the Dental Pulp*—Hyperemia and inflammation of the pulp; capping exposed pulps; obtunding sensitive dentin. Pulp devitalization; pulp removal; treat-

ment of canals; root filling; suppuration; the healing process; immunity and susceptibility; suppuration of the dental pulp; alveolar abscess; absorption of roots of teeth and of bone; caries of bone; necrosis. A study of germicides and antiseptics with laboratory tests. Bleaching teeth. First semester. One lecture a week. Professor

e. *Quizzes and Recitations*—First semester. One hour a week.

f. *Peridental Membranes*—Review of histological structures; simple gingivitis; calcic inflammation; phagadic pericementitis; re-plantation and transplantation of teeth; functions of the mucous membranes of the mouth; stomatitis; prophylaxis; mouth hygiene. Second semester. Two lectures a week. Professor

g. *Quizzes and Recitations*—Second semester. One hour a week.

h. *Clinical Practice*—In addition to the above courses, third year students are required to make two hundred points in practical treatments in the Infirmary clinic, and to send in for examination and criticism a complete history of the conditions found and the treatment record of each of ten cases. Professor _____ is in the Infirmary one-half day each week to superintend this work.

ORTHODONTIA.

PROFESSOR SELLERY, DR. BUCKLEY, AND ASSISTANTS.

Orthodontia is taught both didactically and clinically. Proceeding from the normal occlusion, derangements of the alignment of the teeth and malformations of the dental arch are systematically classified, and mechanical arrangements of fixtures for bringing the several classes of irregularities into normal form are carefully studied. Text-books: Angle, Guilford, Knapp. Lantern slides from photographs, X-ray pictures, and models of cases are used.

THIRD YEAR.

a. *Occlusion and Facial Art*—Etiology, classification, diagnosis of malocclusion. The alveolus and alveolar processes, the peridental membranes, and use of models. First semester. One lecture a week. Professor Sellery.

b. *Regulating Appliances, Angle, Guilford, Knapp*—Anchorage, jack screws, levers, traction screws, extension arch and combinations, split plates, reciprocal anchorages, retention. Illustrated with models, with movable teeth and enlarged appliances. Stereopticon views, illustrating progressive regulation and final fixation. Second semester. One lecture a week. Professor Sellery.

c. *Clinic or Infirmary Course*—Open to students during first and second semesters for practical work in the correction of practical cases. Professor Sellery, Dr. Buckley, and assistants.

PROSTHETIC DENTISTRY.

PROFESSOR PROTHERO, DR. METHVEN, DR. WALDBERG, AND ASSISTANTS.

The Prosthetic Technic Laboratory and the Junior Prosthetic Laboratory are situated on the fifth floor, and the Senior Prosthetic Laboratory and the porcelain and inlay laboratory are situated on the sixth floor, adjacent to the Crown and Bridge Room. All are well supplied with outside light, and also completely equipped with electric lights.

Each laboratory is furnished with electric lathes for grinding and polishing. The Junior Laboratory is completely equipped with the heavier laboratory appliances, such as vulcanizers, celluloid presses, and apparatus for casting aluminum plates. The Prosthetic Laboratory, for the use of second and third year students, and devoted to practical operations for patients, is equipped with the appliances necessary for modern prosthetic dentistry, including compressed air for blow pipe work. The adjacent porcelain and gold inlay laboratory is fitted with electric furnaces and with gasoline furnaces and various kinds of swaging devices and casting apparatus for gold-inlay work. The crown and bridge room, for practical prosthetic operations, is equipped with thirty modern operating chairs and a sufficient number of electric connections.

FIRST YEAR.

a. *Prosthetic Technics*—This course covers the fundamental principles of denture construction and crown and bridge work, and accompanies the laboratory course. First semester. One lecture a week. Professor Prothero.

Quiz and Recitation Work—First semester. One hour a week. Dr. Methven.

b. *Laboratory Course*—Impression taking, model constructing, occluding, waxing, flasking; packing, vulcanizing, and finishing partial and full artificial dentures. First semester. Nine hours a week. Professor Prothero, Dr. Methven, and assistants.

c. *Applied Metallurgy*—A descriptive course on the nature and physical properties of metals, especially those used in dentistry, with fundamental principles of their uses; the manipulation of metals, swaging, annealing, solders, and soldering, welding, tempering. Second semester. One lecture a week. Professor Prothero.

d. *Quiz or Recitation*—On the work of Courses a, b and c. Second semester. One hour a week. Dr. Methven.

e. *Laboratory Course*—Construction of dies and counter dies; swaging metal bases of German silver; attaching teeth by soldering and by vulcanite; constructions of crowns and dummies, all metal, and metal and porcelain; assembling individual crowns and dummies to form bridges; constructing and tempering taps and dies of steel; drawing wire and tubing suitable for the construction of orthodontia appliances. Second semester. Nine hours a week. Professor Prothero, Dr. Methven, and assistants.

PROSTHETIC DENTISTRY—SECOND YEAR.

f. *Lecture Course*—Review of technic principles outlined in first year; their application to practical operations in the Infirmary. The physical properties of plaster of Paris and other materials employed in prosthesis. Muscles of mastication; force of the bite; movements of the lower jaw; natural arrangement and occlusion of artificial teeth. One lecture a week. Professor Prothero.

g. *Quiz or Recitation*—One hour a week. Dr. Methven.

h. *Laboratory Course*—Construction of full metal and partial metal base dentures, with teeth attached by soldering and by vulcanite; construction and application of clasps to partial dentures; advanced work in crowns and bridges. Nine hours a week. Professor Prothero, Dr. Waldberg, and Dr. Methven.

i. *Prosthetic Clinic*—Each student is required to carry to completion for patients a number of practical cases, representing each of the various classes of prosthesis, amounting to at least one hundred points in crowns and bridges and one hundred points in plate work. Professor Prothero, Dr. Methven, and assistants.

PROSTHETIC DENTISTRY—THIRD YEAR.

j. *A Critical Review*—Summary of recent methods and appliances; application of porcelain in prosthesis; baked porcelain crowns; porcelain bridges, full porcelain dentures; methods of cavity preparation for porcelain inlays; forming, baking, and setting porcelain inlays. Methods of obtaining wax models of cavities, forming investments, and casting, and setting gold inlays. The student is assigned a series of articles for reading, and is required to present a thesis covering the subject named. One lecture a week. Professor Prothero.

k. *Laboratory Course*—Cast aluminum base dentures; celluloid dentures; banded Logan crowns; baked porcelain crowns; porcelain bridges; continuous gum dentures. First semester. Six hours a week. Professor Prothero, Dr. Waldberg, Dr. Methven, and assistants.

l. *Prosthetic Clinic*—Practical pieces of prosthetic work of all varieties made and fitted for patients in the Infirmary. Studies of the conditions of the mucous membranes; the preparation of roots for crowns and the abutment of bridges; making and setting crowns and bridges, and preparation of cavities and setting porcelain or gold inlays. The minimum requirement is two hundred points in crowns and bridges and two hundred points in plate work.

The infirmary is open to students from 10:30 to 5:30 o'clock each day during term time. This period is divided between the Prosthetic and the Operative Departments, and text-book work and general reading. Professor Prothero, Dr. Methven, and assistants.

GENERAL STATEMENTS.

THE LIBRARY AND READING ROOM.

The Menges Library and Reading Room, named in honor of the late Dr. Theodore Menges, occupies, together with the attached Journal Reading Room, three thousand feet of floor space. It is furnished with reading tables and chairs for about one hundred students. The Library contains 3006 volumes of books on dental and collateral subjects; a rich supply of dictionaries and encyclopedias conveniently placed in the Reading Room for easy consultation; and a nearly complete list of the dental journals that have been published in the English language, with about 16,000 duplicate numbers. The books most used by the students are duplicated, up to six or twelve, and a few to fifteen copies. The books and journals may be used in the Reading Room without restriction, and when the duplication of volumes will allow, they may be drawn out as a circulating library.

THE MUSEUM.

The Museum is in the Reading Room and is open to inspection and study. The cases are arranged to show the specimens to the best advantage.

The comparative anatomy specimens are heads with the teeth, with the exception of the gorilla and chimpanzee, of which there are full skeletons. There is a sufficient number of varieties of each of the several orders to afford specimens of every kind of tooth form and of every variety of placement in mammals, saurians, and snakes, with a rich variety of fishes.

The principal specimens of human skull are first, an excellent mounting of the separated bones of the adult; second, a fine set of dissections in a series showing the development of the teeth and the roots from the first appearance in the fetus to the full adult development, and illustrating the absorption of the roots of the deciduous teeth, the shedding process, and the replacement by permanent teeth; also the absorption of the alveolar processes after the loss of teeth, with the changes that occur in the form of the bones of the jaws from childhood to old age. This is an exceptionally complete, attractive, and valuable set of specimens. There is also a variety of ordinary human skulls.

The Museum contains also a valuable collection of human teeth of abnormal forms; a very full and complete set of specimens illustrating interproximal wear and the flattening of the points of interproximal contact. It is especially rich in casts of cases of supernumerary teeth; some illustrations of the very early forms of artificial teeth, of manufactured porcelain teeth, and of dental instruments, illustrating the development in these lines. This collection has been made in the School largely by students and by alumni, and is being continually increased by donations from those who have met with specimens unusual or rare in practice. Such donations are requested from all practitioners to assist in building up this great museum of abnormal con-

ditions of teeth and of associated parts for the benefit of dental education.

It is the intention that this Library and Museum be continually growing, both by purchase and by contributions, until it shall become the most complete store of recorded knowledge of dental subjects in the country, and that the dental profession of the great Northwest shall have in it a common interest.

All books and specimens donated to the Library or Museum will, as far as possible, bear the donor's name on the label.

SITUATION AND SURROUNDINGS.

The central location of the school and its convenient access from every point affords many and peculiar advantages to its students. It gives them the widest possible range of choice of residence while attending the school, without inconvenience in coming and going. It also gives the school the widest range of territory from which to draw the extensive clinic so necessary to a great dental school. The patients for this clinic come from all parts of the city of Chicago and its suburbs. The personal influence of the students of the school, each one of whom draws from his own friends and acquaintances, made in and about his place of residence, is an invaluable adjunct to the number who come simply as acquaintances of the school. Patients who come as the friends of students make up the personal clinical practice of the individual student.

In this the out-of-town students seem to be in no respect less favored than the student whose home is in the city. This gaining, and holding, a personal clinical practice under the supervision of the instructors in the clinic rooms has come to be one of the features of this school that has a telling effect upon the after-practice of its students. By this plan of work the student not only learns the theory of practice and the manipulations of practical operations in dentistry, but he passes at once to the work of real experience in building a practice for himself; in gaining that skill in professional comity and personal manner between himself and his patients, which is as necessary to him in after years, in drawing together and maintaining a practice, as his knowledge of dental diseases and his skill in their treatment.

For these reasons the residence of students in groups in widely different portions of the city is favored. This also gives the benefits of a more homelike life, while giving in the aggregate a far better conception of life in a great city and decidedly better opportunity to draw upon its advantages, while shunning the disadvantages of large gatherings of students in a single locality.

Chicago is a great city and gives many opportunities to the student who learns to avail himself of them. LINCOLN PARK on the north offers, besides its beautiful pleasure grounds, some grand botanical gardens and winter conservatories, where all manner of plants may be enjoyed or studied; a fine ZOOLOGICAL COLLECTION, where a large variety of animal and bird life may be studied, and the MUSEUM OF NATURAL HISTORY, in which there is a very large collection of birds, animals and

fossil remains of extinct animal life. JACKSON and WASHINGTON PARKS on the south, besides their extensive pleasure grounds, also offer splendid botanical gardens and winter conservatories, while the FIELD COLUMBIAN MUSEUM offers a rare collection of Natural History specimens especially suited for the study of comparative dental anatomy, of modern and ancient skulls and the condition of the teeth in the various races and types of men in different ages. The admission to this museum is free to students on presentation of their matriculation tickets to this school. Many other parks afford favorite pleasure grounds.

LIBRARIES.

A NUMBER OF LIBRARIES are accessible to students who have taste for study, or for looking up subjects of scientific or literary interest, or in connection with special studies.

THE UNIVERSITY LIBRARY COLLECTIONS offer very abundant facilities for students. They are ample in the number of books adapted to the different schools and are so situated as to be easily accessible; generally within the school buildings. They consist of:

- The College collection.
- The Law collection.
- The Medical collection.
- The Pharmacy collection.
- The Theodore Menges Library of the Dental School, and
- The Theological collection.

CHICAGO LIBRARY (402,848 volumes, June, 1910) is on Michigan Avenue and Washington Street, five minutes' walk from the school. It is one of the finest libraries in the country. Students may receive books from this library when vouched for by responsible persons known to the officials. This library has also many branch offices in different parts of the city, from which books may be received on application. These will often be convenient to the boarding places of students.

THE NEWBERRY LIBRARY is very large (259,000 volumes, June, 1910), and, besides general works, has also a large medical and dental library. It is on North Clark Street and Walton Place, and may be reached in a ten minutes' walk. This is a reference library, and books can be used only in its reading rooms.

THE JOHN CRERAR LIBRARY (260,000 volumes, June, 1910), occupies one and one-half floors in the Marshall Field Building, corner Wabash Avenue and Washington Street. It is devoted mainly to the natural, the physical and the social sciences, with their applications. It is a most excellent collection of books. It is a reference library, and its books are used only in its reading rooms.

These libraries are accessible to our students, and they will find in them not only a very large collection of books, but also men in attendance who are able and willing to assist students in finding anything that they contain upon any given subject.

There are a large number of other libraries, both general and on special subjects, that are available to the student who may wish to make proper and legitimate use of them.

TEXT-BOOKS

will be on sale in the Theodore Menges Library of the school at publishers' prices. There will be a small profit from the sale of these books, which will be used for the benefit of the library. Students are invited to purchase their books in the school and aid the library. Each student will be required to have the books designated below. The Reference books are in the Library and may be used as needed.

FIRST YEAR.

Anatomy—Cunningham (new edition) or Gray. \$6.00 Cloth. \$7.00 Sheep.
Dental Anatomy—Black. \$2.50.
Operative Dentistry—Black. \$10.00.
Prosthetic Dentistry—Prothero. \$5.00.
Physiology—Kirkes. \$3.00. Wiggin. \$2.00.
Exercises in Chemistry for Laboratory—Alexander Smith. \$0.90.
Histology—Bailey. \$3.00.
Medical Dictionary—Gould. \$1.00.

SECOND YEAR.

Anatomy—(Same as first year.)
Operative Dentistry—Black. (Same as first years.)
Prosthetic Dentistry—Prothero. (Same as first year.)
Physiology—Kirkes. (Same as first year.)
Materia Medica—Prinz. \$5.00.
Pathology—Wiggin. \$2.00.
Chemistry—Moore's Outlines of Organic Chemistry. \$1.50.
Comparative Anatomy—Thompson. \$1.50.
Histology—Bailey. (Same as first year.)

THIRD YEAR.

Operative Dentistry—Black. (Same as first and second years.)
Prosthetic Dentistry—Prothero. (Same as first and second years.)
Oral Surgery—Gilmer. \$2.50.
Orthodontia—Angle. \$5.00.
Dental Jurisprudence—Rehfuss.
Micro-Organisms—Abbott.

REFERENCE BOOKS.

American System of Dentistry.
Crown and Bridge Work—Evans.
Diseases and Injury of the Teeth—Smale and Colyer.
Principles of Surgery—Senn.
The American Text-Book of Prosthetic Dentistry—Essig or Turner.
The American Text-Book of Operative Dentistry—Kirk.
Micro-Organisms of the Human Mouth—Miller.
Micro-Organisms—McFarland.
Dental Pathology and Pharmacology—Burchard.

Oral Surgery—Garretson.

Long's Chemistry.

Comparative Dental Anatomy—Tomes, Thompson.

Regional Anatomy of the Head and Neck—Eckley.

Anatomy—Morris, Eckley.

Histology—Piersol.

INSTRUMENTS.

The instruments essential to the students in the several departments of the school have been carefully studied and determined. Much care has been bestowed upon the selection of the instrument sets that the variety of forms may be sufficient for the student's needs without being excessive. Close study of this subject and long and careful observation of students and the progress they make in the attainment of manipulative skill show their progress to be closely related to their instrument equipment. Therefore this school must demand that the instrument sets *required* be obtained by each student as a condition to his continuance in school work.

In operative dentistry it is found that a close adherence to the formula plan, in the study of cutting instruments particularly, is essential in teaching the important subject of cavity preparation, and this will be carried out critically in all the departments of the school. This teaching is begun in the technic classes and the same lines of instruction are followed progressively by teachers and demonstrators in all of the departments to the end of the Senior year, the same instrument sets being used throughout the course of study.

In prosthetic dentistry and in the several laboratories a similar care as to instruments is maintained.

The instruments in the list are *required* because they are essential to the student's progress, and students must provide them. *Students should not bring with them, nor purchase, instruments of other patterns, for they cannot be received as equivalents of the required sets.* They are the same as those that have been required in former years. No student is required to make changes in his instrument sets during his three years' course, and these instruments form his instrument equipment for entering practice after graduation.

INSTRUMENTS AND APPLIANCES REQUIRED DURING THE FRESHMAN YEAR.

CUTTING INSTRUMENTS.

ORDINARIES.

HATCHETS.

12-5-6

8-3-6

6-2-6

12-5-12

8-3-12

6-2-12

12-5-23

8-3-23

6-2-23

HOES.

12-5-6

8-3-6

6-2-6

12-5-12

8-3-12

6-2-12

12-5-23

8-3-23

6-2-23

SPECIALS.

ENAMEL HATCHETS.

Right, 20-9-12

Right, 15-8-12

Right, 10-6-12

Left, 20-9-12

Left, 15-8-12

Left, 10-6-12

SPOONS.

Right, 20-9-12

Right, 15-8-12

Right, 10-6-12

Left, 20-9-12

Left, 15-8-12

Left, 10-6-12

GINGIVAL MARGIN TRIMMERS.			
Right, 20-(95)-9-12	Left, 20-(95)-9-12		
Right, 20-(80)-9-12	Left, 20-(80)-9-12		
Right, 15-(95)-8-12	Left, 15-(95)-8-12		
Right, 15-(80)-8-12	Left, 15-(80)-8-12		
BIN-ANGLE CHISELS.		STRAIGHT CHISELS.	
20-9-6	20		
15-8-6	15		
10-6-6	10		
SIDE INSTRUMENTS.			
HATCHETS.	CLEOID.	DISCOID.	
5-3-28	3-2-28	20-2-12	20-3-12
AMALGAM PLUGGERS.			
30x10-7-12		10x30-7-12	
35-7-12		15-7-12	
1 Explorer, No. 3.			
1 each Plugger Points, University.			
No. 11, 6x12-6-10 Contra-angled.			
No. 7, 5-10-3.			
No. 9, 10-10-3.			
No. 391, 5x20.			
1 Automatic Handle, No. 4.			
1 Black's special holding instrument.			
1 each Burnishers, Nos. 2, 26, 28.			
1 Instrument Roll.			
1 Hand Mallet, No. 5.			
1 pair Foil Carriers, No. 12.			
1 Cement Spatula, No. 24.			
1 Mixing Tablet, No. 2.			
1 Mortar and Pestle, No. 2.			
1 oz. Absorbent Cotton.			
1 Arkansas Stone, 2x5x3/8 inches.			
1 Bottle of Oil.			

IN ADDITION TO THE INSTRUMENTS AND APPLIANCES USED IN THE FRESHMAN YEAR, THE FOLLOWING ARE REQUIRED IN THE OPERATIVE CLINIC DURING THE JUNIOR AND SENIOR YEARS.

GOLD FILLING INSTRUMENTS.

1 Automatic Mallet.	
1 each Plugger Points.	
Round, 10-10-3	
7 1/2-10-3	
5-10-3	
5-3-23	
5-2-23	
5-2-0, Bayonet.	
Parallelogram, 5x10-3-3	
10x5-3-3	
6x12-6-10	
12x6-6-10	
Foot, 15x5-5-12	
15x5-3-18	
15x5-2-18	

FINISHING INSTRUMENTS.

1 set of 3 Finishing Knives.	
1 set of 6 File-cut Finishing Files.	
1 Black's Saw, Frame.	
1 doz. Kaeber's Saws, one edge.	
1 doz. Thread Saws.	

AMALGAM PLUGGERS.

35x15-7-12	15x35-7-12
25x7-12	

1 Root Canal Plugger, No. 35.	
1 Root Canal Plugger, No. 36.	
1 box narrow Polishing Strips, assorted.	
2 Broach Holders, handles of dissimilar color.	
1 package Barbed Broaches, assorted.	

1 box round gutta-percha root canal points, assorted.	
1 Alcohol Lamp with Annealing Tray.	
1 sheet Steel for Matrices, gauge 3-1000.	
1 sheet Copper for Matrices, gauge 26.	
1 Lowell Pin Vise.	
1 Boley Millimeter Gauge.	
1 Revolving Head Engine Bit Holder.	
1 Pocket Lens, two glasses.	
6 Medicine Bottles.	
1 each Engine Burs, Nos. 1/2, 1, 3, 5, 7, 11, 66.	
1 box Piano Wire, length 6 in., gauge 25.	
1 Grobet File, half round, 5 in., No. 1.	
1 Grobet File, half round, 5 in., No. 3.	

SPECIALS FOR FRESHMEN.

NOT REQUIRED AFTER THE FRESHMAN YEAR.

1 Work Box.	
1 Card Board arranged for Tooth Sections.	
1 Card Board arranged for Instrumentation.	
1 set (6) Ivory Carving Blocks.	
12 small Wood Blocks for Mounting.	
1 Tooth Brush Handle.	
1 Stick Black Sealing Wax.	
1 Spool Black Silk.	
1 piece Brass Tubing for cleaning files, 3/8x6 inches.	
50 pieces Brass Wire, 4 1/2 inches long, gauge 13.	

ENGINE AND INSTRUMENTS.

Sizes of Burs are given in tenths of millimeters.	
Burs, Round	Sizes 6 8 12 16 20 Nos. 1/2 1 3 5 7
1 Dental Engine.	
Burs, Inverted	Sizes 6 8 12 16 20 Cone Nos. 33 1/4 34 36 38 40
Burs, Fissure	Sizes 6 8 12 16 20 sq. end Nos. 55 1/4 56 58 60 62
Burs, Finishing	Sizes 20 25 40 Bud 25 oval Nos. 218 219 222 Bud 225
Drills, bi-beveled	Sizes 8 10 12 16 Nos. 100 101 102 104
Drills, sq. end	Sizes 8 10 Nos. 114 115
Contra-angle hand piece and burs for engine.	
1 Porte Polisher, No. 307.	
1 box Wood Polishing Points.	
2 Mandrels, No. 303.	
1 Mandrel, Morgan-Maxfield.	
1 box Emery Paper Disks, 1/2 inch, grits Nos. 00, 1.	
1 box each Sand Paper Disks, 5/8 inch, grits Nos. 00, 1.	
1 box each Cuttlefish Paper Disks, 1/2 and 5/8 inch.	

1 doz. Three-Cornered Rubber Polishing Disks.
1 set (14) MaWhinney's L. II. Scalers.

ACCESSORIES.

1 "Northwestern" Instrument Case.
1 Mouth Mirror, No. 3.
1 Rubber Dam Punch.
1 Universal Rubber Dam Clamp Forceps.
1 pair Special Third-Molar Rubber Dam Clamps, right and left.
1 each Rubber Dam Clamps, Nos. 5, 9, 14, 18.
1 Hatch Cervical Clamp.
1 pair Rubber Dam Clamps for Roots.
1 spool of Waxed Floss.
1 Rubber Dam Holder.
2 Rubber Dam Weights.
1 Water Syringe, No. 22.
1 Chip Syringe, with valve in the back end.
1 Abscess Syringe, No. 33.
1 Cotton Holder.
1 package Barbed Root Broaches, assorted.
2 Smooth Broaches.
1 sheet Base Plate Gutta-Percha.
1 each Explorers, Nos. 3, 13, 14.
1 Perry's Universal Separator.

MEDICINE LIST.

1 Case Medicine Bottles.
½ oz. Pyrozone, 3 per cent.
½ oz. Phenol, 95 per cent.
½ oz. Dialyzed Iron.
½ oz. Oil of Cassia.
½ oz. Oil of Cloves.
½ oz. Eucalyptol.
½ oz. Glycerine, Iodine and Zinc.
½ oz. Tincture of Iodine.
½ oz. Oil of Cassia, 1; Phenol, 2; Oil of Wintergreen, 3.
½ oz. Monsell's Salt, Sub-Sulphate of Iron.
½ oz. Tricresol.
½ oz. Sol. Iodide of Zinc, 24 grains to 1 oz.
½ oz. Chloro-percha.
½ oz. Glycerite of Tannin.
½ oz. Tincture of Aconite, 1; Iodine, 1; Chloroform.
½ oz. Powdered Sulphate of Copper.
1 small stick of Silver Nitrate.

SURGICAL CASE (Seniors Only).

1 Leather Pocket Case.
1 Scalpel, ½ inch blade.
1 Tenaculum.
1 Sharp Steel Probe.
1 Silver Probe.
1 Grooved Director.
1 Exploring Needle.
1 pair Artery Forceps, 4½ inch.
1 pair Surgeon's Scissors, 4½ inch, straight.

PROSTHETIC DENTISTRY.

1 Plaster Bowl, "B."
1 Plaster Spatula, No. 17.
1 each Impression Trays, Uppers Nos. 2, 3, 22.
1 each Impression Trays, Lowers Nos. 3, 15, 25.
1 "Improved Snow" Occluding Frame.
1 Snow's Face Bow.
1 box Pink Wax.
1 Prothero's Wax Spatula.
1 iron Vulcanite Flask.
1 Flask Wrench, No. 10.
1 Vulcanite File, D. E., half round, 8 inches.
1 each Vulcanite Chisels, Nos. 14, 15.

1 each Kingsley's Finishers, Nos. 4, 5, 6.
1 Felt Cone, large blunt.
1 Felt Wheel, No. 2.
1 each Brush Wheels, Nos. 4, 20, 26.
2 Lathe Chucks.
1 Carborundum Wheel, 1½x¾ inch, grit "B."
1 Carborundum Wheel, 1½x¾ inch, grit "D."
1 Mechanical Saw Frame.
1 dozen each Mechanical Saws, Nos. 00, 2.
1 pair Plate Shears, Heinisch.
1 pair Curved Plate Shears, No. 5.
1 pair Round-nosed Pliers, 4½ inches, No. 107.
1 pair Flat-nosed Pliers, 4½ inches, No. 104.
1 pair Prothero's Contouring Pliers.
1 Horn Mallet.
1 Plate Punch, No. 1.
1 Solder Tweezers "A."
1 Solder Tweezers "L."
1 pair Reese's Solder Pliers.
1 Prothero's Plate Burnisher.
1 Compound Blow Pipe.
1 Asbestos Soldering Block, No. 2.
1 Borax Slate.
1 Plate File, Grobert, half round, 5 inches, No. 3.
1 Gas Burner, No. 12, with spider.
18 inches Rubber Tubing, ¼ inch.
54 inches Rubber Tubing, 5-16 inch.
1 spool Annealed Iron Wire, 36 gauge.
½ lb. Special Asbestos.
1 Melotte's Moulding Outfit.
3 lbs. Babbitt Metal.
3 lbs. Counter-Die Metal.
1 set of (2) Casting Rings.
1 can Calcar or Moulding Sand.
5 dwts. Silver Solder.
1 bottle Separating Fluid.
½ lb. Modeling Composition.
3 sheets Sandpaper No. 1.
4 sheets Red Maroon Rubber.
4 sheets Pink Rubber.
1 bottle Shellac Varnish.
1 oz. Powdered Soapstone.
1 box Crystal Borax.
4 inches Steel Wire, ¼ inch diameter.
12 inches German Silver Wire, 16 gauge.
1 Wire Soldering Frame, 4x4 inches.
1 pair Pliers, No. 121.
1 pair Plate Nippers, No. 3M.
1 Riveting Hammer "B."
1 piece of German Silver Plate, 22 gauge.
1 piece Aluminum Plate, 18 gauge.
12 inches German Silver Wire, 16 gauge.
1 pair Case Cleavers.
1 pair Prothero's Files with No. 8 handles.
1 pair Crown and Collar Scissors, No. 11.

SPECIAL FOR JUNIORS.

1 Martin Screw Plate, holes Nos. 0 to 12, series "B."
1 Draw Plate, special.
½ lb. German Silver Plate, 28 gauge.
12 inches German Silver Wire, 14 gauge.
12 inches German Silver Wire, 16 gauge.
12 inches Stub's Steel Wire, 93-1000.

SPECIAL FOR SENIORS.

PORCELAIN INSTRUMENTS.

1 "K" Pliers.
1 "K & D" Pin Vise.
1 pair Ball-Pliers.
1 Porcelain Carving Instrument.
2 Camel Hair Brushes.
1 set Thompson's Burnishers, Nos. 1, 2, 5, 8.

In addition to the above list it is recommended strongly that each student obtain the quadrangle instruments, both the direct and the back-action, and the back-action pluggers to be used by malet pressure. It is also recommended that each student obtain his own furnace for porcelain work and his own device for casting gold inlays, and make use of these while in school.

SUMMER CLINICS.

The clinic rooms will be open all the year for the benefit of students who may wish to have greater experience in clinical practice under competent supervision. The number of demonstrators during the summer will be ample for the class that may choose to remain with the school. The clinical material is abundant, and a most excellent opportunity is afforded for clinical practice.

The value and adequacy of the clinical instruction and experience in practice to students is inestimable. The extent of it can be best understood by an examination of the subjoined condensed tabular statement, extracted from the Examiner's report for the year ending June 30, 1910:

ASSIGNMENTS OF PATIENTS TO STUDENTS JULY 1, 1909, TO JUNE 30, 1910.

	General	Special.	Total.
July, 1909	218	16	234
August	259	10	269
September	349	29	378
 Total Summer Vacation.....	 826	 55	 881
October, 1909	600	189	789
November	574	186	760
December	394	161	555
January, 1910	483	267	750
February	487	340	827
March	434	365	799
April	445	271	716
May	404	144	548
 Total in Course.....	 3,821	 1,923	 5,744
June	231	49	280
 Total for twelve months.....	 4,878	 2,027	 6,905
Transferred from last year.....			676
 Total	 7,581		

The special patients are assigned to such students of their acquaintance as they ask to have take care of their cases, while the general patients are assigned by the Examiner to such students as need the particular experience and practice that their cases involve. Many of these general patients have come to the school for a number of years

and continue to come in the same manner as they would go to the office of a dental practitioner. The school has thus acquired a very large clinic, really large enough for the instruction of a fairly large class of students, but the students are encouraged to have their friends ask for their especial services, as a step in the direction of the teaching of practice building.

The operations performed for these 7,581 patients during the year were 30,763 in the Operative, 2,863 in the Prosthetic, 350 in the Oral Surgery and 900 in the Orthodontia Department; a total of 34,876 separate operations. Among the operations performed in the Operative Clinic were:

- 9,446 fillings of all descriptions.
- 2,823 root fillings.
- 1,260 pulps devitalized.
- 1,196 pulps removed under cocaine.
- 139 cases of pericementitis treated.
- 230 cases of pyorrhea treated.
- 1,642 cases of removal of calcareous deposits.
- 4,089 cases of extraction.
- 710 cases of administration of general anæsthetics.
- 151 cases of administration of local anæsthetics.
- 2 cases of bleaching.
- 33 porcelain inlays.
- 543 cast gold inlays.

In the Prosthetic Department were made and inserted:

314 gold and 26 porcelain bridges.....	849 teeth
450 shell crowns	450 teeth
65 Richmond crowns	65 teeth
16 porcelain crowns	16 teeth
62 banded Logan crowns.....	62 teeth
372 plain Logan or Davis crowns.....	372 teeth
434 artificial dentures	3,793 teeth
Total teeth restored or replaced.....	5,607

There were 540 plates, crowns and bridges repaired. There were also four practical surgical splints and six complete obturators made and applied.

ENROLLMENT OF STUDENTS, 1909-10.

SENIOR CLASS.

Anglemire, Raymond Lee, *Ill.*
 August, David Hjalmar, *Wis.*
 Baker, Arthur Edwin, *Iowa.*
 †Bail, James William, *Iowa.*
 Bantle, George Anthony, *Minn.*
 Baughman, Ira Lucian, *Ill.*
 Becker, Ralph William, *Ill.*
 Beerman, Ernest August, *Iowa.*
 Bergstrom, Hyrum, *Utah.*
 Berndt, George Walter, *Oregon.*
 Black, Charles Neil, *Wash.*
 Blackwell, James David, *Ill.*
 Brimacombe, James Kennedy, *Canada.*
 Brown, Benjamin Lyman, *Ill.*
 Burkett, Clifford Wahl, *Ind.*
 Buss, Reuben Julian, *Wis.*
 Byers, Ford L., *Iowa.*
 Campbell, Guy Stetler, *N. Y.*
 *Carmichael, Robert Henry, *M. D.*, *Mich.*
 Cartwright, Charles Hull, *Iowa.*
 Carson, Knute Paul, *Ill.*
 Covert, George Bergen, *Mich.*
 Crawford, Edgar Harper, *B. C.*
 Crew, Thomas James, *Wis.*
 Dandelles, Epaminondas, *Turkey.*
 Denny, Thomas Jefferson, *Ill.*
 Denton, William Lemmon, *S. D.*
 Dolby, George Hugo, *Ill.*
 Donovan, Gustave Thomas, *Australia.*
 Downs, George Almond, *Iowa.*
 Dugger, Marion Harvey, *Ill.*
 Eckman, Philip Anthony, *N. D.*
 Farwell, Harry Russell, *Ill.*
 Fielding, Aldrich, *Australia.*
 Firkins, Ashley Martin, *Ill.*
 Foley, Thomas Joseph, *Ill.*
 Forester, Frederick Lyman, *Ill.*
 Gates, Marshall Edison, *Ill.*
 †Gatton, John S., *Iowa.*
 Gerhold, Elsa Juliane, *Austria.*
 Gibson, Barney McCullough, *Iowa.*
 Goode, William Allen, *B. S.*, *Cal.*
 Goeres, Theodore Otto, *Wis.*
 Govett, Denzil, *Australia.*
 Graf, Clarence Zina, *Ill.*
 *Guggenheim, Emanuel, *Ill.*
 Halderman, Roy S., *Kas.*
 Hanson, Lloyd Martin, *S. D.*
 Heine, Raymond Otto, *Iowa.*
 Hillweg, Charles Ulysses, *Iowa.*
 Holm, Edward Olaf, *S. D.*
 Holmes, H. Claude, *B. A.*, *Kas.*
 Host, Walter Robert, *Wis.*
 Hudson, Frank Burton, *B. S.*, *Wis.*
 †Hunt, Winford A., *Ill.*
 Joerin, Albert E., *Mich.*
 Kelly, Harry Whiteside, *Oregon.*
 †Kikuraku, Keitaro, *Japan.*
 Kimbell, Will Eugene, *Iowa.*
 †Kinney, Guy Bark, *Iowa.*
 Knox, Sidney Barclay, *Ill.*
 Kost, Walter Henry, *Minn.*
 *Leach, Corl Eber, *Nebr.*
 Leonard, Frank Anderson, *Iowa.*
 Lillie, Roy Kay, *Canada.*
 Link, William John, *Iowa.*
 McBride, Lyman Augustus, *Oregon.*
 Madill, Christopher John, *Canada.*
 Manosevitch, George Herman, *Ill.*
 *Moeller, Frank Raymond, *Mich.*
 Nankervis, Henry, *Mich.*
 Nichol, Clifton Thomas, *Ill.*
 Over, Charles Brown, *Mont.*
 Payne, Eugene Irwin, *Ill.*
 *Pooley, Harry, *Ill.*
 *Rakow, William J., *Ill.*
 Roe, Joseph Blaine, *Mich.*
 Rowley, Thomas Joseph, *New Zealand.*
 Sandoz, George Ellis, *La.*
 Sederholm, Hjalmar Axel, *Ill.*
 Shipstead, Samuel Christian, *Minn.*
 Smith, Carlton Radford, *India.*
 Smith, William Henry, *Iowa.*
 Spencer, Lyle Sargent, *S. D.*
 Stockman, Dee Damon, *Utah.*
 *Sullivan, Ralph Sylvester, *Ill.*
 Summers, Robert Lee, *B. S. D.*, *Mo.*
 Symonds, John Thomas, *Oregon.*
 Taeker, Henry Robert, *S. D.*
 Thorley, Robert Aldridge, *Utah.*
 Thornton, Irl Jay, *Kas.*
 Todd, Roland Hill, *Ill.*
 Valenzuela, Carlos Francisco, *Costa Rica.*
 Weinstein, Jacob, *Ill.*
 Wilbur, Carl Ellsworth, *Wash.*
 Wilhite, Fielding Madison, *Mo.*
 Wilson, Elizabeth Ray, *Ill.*
 Wilson, Walter LeRoy, *Wis.*
 Woods, Frank Ray, *Ill.*
 Wright, John Edgar, *Mo.*
 †Young, Garland LeRoy, *Texas.*

JUNIOR CLASS.

Adelson, Abraham, *Ill.*
 Adkins, Owen Edward, *Iowa.*
 Bacon, Francis Erastus, *B. S.*, *Ill.*
 Bartley, Mortimer Milton, *Wis.*
 Beatty, George Mudie, *Australia.*
 Benn, Raymond Marcus, *Iowa.*
 †Beyler, Walter Melvin, *Ind.*
 Bigler, John August, *Ill.*
 Bowden, George Leonard, *Ill.*
 Bremner, John A., *Canada.*
 Brown, Geoffrey Patteson, *Australia.*
 Bushee, Ralph Waldo, *Ill.*
 Busta, Edward Harry, *Iowa.*
 Chulock, Joseph William, *Ill.*
 Clark, James Paul, *Wash.*
 Collins, Thomas Martin, *Ill.*

Cornwall, John Thomas, *Wis.*
 Cox, Wilford Charles, *Utah.*
 Crawford, Harry Burch, *Mich.*
 Delmore, Hubert Francis, *Wis.*
 Duncan, William Henry, *Mich.*
 Fairfax, Henry Hopson, *Tenn.*
 Flannery, Edward Eugene, *Ill.*
 Fouser, Ralph Homer, *Iowa.*
 Fox, John Henry, *Ind.*
 †Furstman, Jacob Miller, *M. D.*, *Ill.*
 Garber, David Raymond, *Ind.*
 Gayle, William Ross, *Texas.*
 Geyer, Eber C., *Mich.*
 Godson, Richard, *Australia.*
 Goldthorpe, Charles Clyde, *Ill.*
 Grossberg, Arthur, *Ill.*

*Did not complete course.

†Matriculated but not in attendance.

‡Died June 3rd, 1910.

*Guha, Narendra Chandra, *India*.
 Harrington, Earl Fremont, *S. D.*
 Harrison, Delmar Jay, *Minn.*
 *Hedman, Carl Edwin, *Minn.*
 Hemmer, Francis Joseph, *Iowa*.
 Henn, Elmer J., *Ill.*
 Hewitt, William James, *N. D.*
 Holland, Carl Martin, *Iowa*.
 Holtan, Arthur George, *Ill.*
 Horner, Harold Ince, *Iowa*.
 Howe, Walter Guy, *Ill.*
 Hull, Robert Clayton, *S. D.*
 Huntington, Roger Ebinger, *Ill.*
 Ingram, Hector Sydney, *England*.
 Johnson, Martin Loren, *Ill.*
 *Kenney, William Thomas, *Texas*.
 Kundert, Leo Harris, *Ill.*
 Laird, Harry Brumfield, *Mo.*
 Langdon, Edwin Lawrence, *Australia*.
 Latham, Garnett, *Wis.*
 Leach, Floyd DeWitte, *Wis.*
 Leach, Roy Carroll, *Nebr.*
 Lund, Herman John, *Ill.*
 McCormick, Jay Luvern, *Iowa*.
 McCready, Charles Ray, *Cal.*
 McDaniel, Walter Oliver, *Ill.*
 McDermott, Emmet E., *Wis.*
 McIntyre, Leslie Herbert, *Canada*.
 *Metzner, Horace Edmund, *Wis.*
 Millard, Glenn W., *Nebr.*
 Mindlin, Barnett, *N. Y.*
 Monahan, Matthew Joseph, *Ireland*.
 Montgomery, Ida Olive, *Canada*.
 Morlan, James Leonard, B.S., *Ill.*
 Muir, Harry D., *Iowa*.

Myers, Roy Albion, *Ill.*
 Nahas, Albert John, *Egypt*.
 Nichols, Ira Goodsel, *Miss.*
 Nugent, Lawrence Earl, *Minn.*
 Offil, William Arthur, *Ill.*
 Olshan, Hirsh Gammil, *Ill.*
 Papantonopoulos, Nickolas Geo., *Greece*.
 Pearson, Townsend Adelbert, *Iowa*.
 Pruyn, Walter Mann, *Ill.*
 Putnam, Claude Ashbil, *Ill.*
 †Roach, Richard M., M.D., *Ill.*
 Robinson, Peter Edward, *N. C.*
 Rowan, William Anthony, *Ill.*
 Schumacher, Frank Paul, *Ill.*
 Shaffer, Lee Harrison, *Ill.*
 Skillen, William Graham, *Ill.*
 Smith, George Clifford, *Wis.*
 Smith, Homer Arthur, *Mass.*
 Sprecher, Adolph Gustave, *S. D.*
 Stair, Karl Elbert, *S. D.*
 *Stewart, Frederick A. P., *N. Y.*
 Syverud, Herman, *S. D.*
 Tebbs, D. D., *Utah*.
 Thomson, James Urquhart, *Ill.*
 Tiernan, Andrew, *Iowa*.
 Tufveson, Nels, *Sweden*.
 Tyler, Jesse Martin, *Miss.*
 Ullom, Stanley William, *Iowa*.
 Welcher, David Morris, *Ill.*
 Welden, Floyd Handy, *Nebr.*
 West, Floyd Eddy, *Wis.*
 Williams, John Dyke, *Iowa*.
 *Woodworth, George W., *Ohio*.
 †Woodruff, Silas, *Kas.*

FRESHMAN CLASS.

Akesson, Axel Wictor, *Sweden*.
 Applebee, Alpha Bowers, *Ill.*
 †Arai, Hirokichi, *Japan*.
 *Asger, Melchi Edward, *China*.
 Babcock, William, *Ill.*
 Bailey, George Watson, *Wis.*
 Baker, Waldorf Astor, *Oklahoma*.
 Ball, Ralph Thomas, *Ill.*
 Basford, Harry Lea, *Wis.*
 Basford, L. P., *Wis.*
 Bass, Feris Achille, *Texas*.
 Bigelow, Judd Mortimer, *Wis.*
 Boehme, Louis Hugo, *Ill.*
 Bradbury, Arthur Rexford, *Ill.*
 Brady, Charles Thomas, *Ill.*
 Butler, Guy Goldthorp, *Iowa*.
 Carlisle, Thomas, *Ill.*
 Cashin, William Roy, *Wis.*
 Cohen, Abraham Aaron, *Ill.*
 Collins, Camillus Carl, *Iowa*.
 Cook, John Richards Williams, *Ind.*
 Cook, Merritt Wilson, *Pa.*
 Corby, Ernest E., *Kas.*
 †Cottrell, Daniel, *England*.
 Croessmann, Julius William, *Ill.*
 Culp, Corydon Alonzo, *Ill.*
 Cusack, Cecil George Henry, *Australia*.
 Davis, John Harrison, *S. D.*
 Deeble, Albert Leslie, *S. D.*
 Dush, Verna Roscoe, *Ill.*
 Edlund, Eskill Walter, *Ill.*
 *Engebreton, Peter Jacob, *Minn.*
 Etzbach, Bruno Anton, *Ill.*
 Faller, Edward George, *Wis.*
 †Fischer, Leonora, *Ill.*
 Freedlund, Gust Reginald, *Flor.*
 Freeman, Charles West, *Vt.*
 Freeman, Louis George, *Ind.*
 †Gage, Herbert G., *Iowa*.

Genter, James Henry, *Ill.*
 †Gibbons, Lee George, *Ill.*
 Grosser, Walter William, *Ill.*
 Harmon, Herbert Newel, *Wis.*
 Hanrahan, Eugene Patrick, *Ill.*
 †Heath, Benjamin Lisle, *Wis.*
 Heil, Henry Anthony, *Wis.*
 *Heinen, Herman Eligius, *Ind.*
 Henderson, Augustus Primus, *N. C.*
 Henderson, Lewis Bernhard, *N. D.*
 Hiscox, William Leon, *Canada*.
 Hobson, Fred Nae, *Iowa*.
 Hoffman, Augustus Knight, *Iowa*.
 Hughes, Edmund Joseph, *N. D.*
 Johnson, Albert Creighton, *Ill.*
 Johnson, Gordon George, *Wis.*
 †Juhl, Erik, *Germany*.
 *Kamitani, Kauji, *Hawaii*.
 Kennedy, Ernest, *Canada*.
 Linn, Oliver Reinhold, *S. D.*
 *Lizar, Francis Aaron, *Wis.*
 Logan, Eugene Raymond, *Texas*.
 †Mackh, Carl August, *Ill.*
 Macko, Frank W., Jr., *Ill.*
 Martin, Eric Allan, *Australia*.
 †Mason, William Michael, *Ill.*
 †Matthews, James Albert, *Mo.*
 Mattice, Clyde Merril, *Wash.*
 Miller, Guy Morris, *N. D.*
 Murfey, St. Clair, *Mexico*.
 Nelson, Alex Clark, *Wis.*
 Olech, Joseph Benjamin, *Russia*.
 *O'Meara, Ray Morgan, *Iowa*.
 Parker, Hale Giddings, Jr., *Ill.*
 Parson, John Moore, *Canada*.
 Pelton, John Gordinier, *Wis.*
 Pfening, Ernest, Jr., *Ill.*
 Pickles, Nathan Corr, *Mo.*
 Postle, Merton Meyne, *Ohio*.

*Did not complete course.

†Matriculated but not in attendance.

Randolph, Milton Fitz, *Wash.*
 Rice, Warren Earl, *Wis.*
 Rice, William John, *Ill.*
 Richards, Mahlon Addison, *Wis.*
 Rogers, Neil Oscar, *Ill.*
 Rose, Leonard Adam, *N. D.*
 *Roseland, Levi A., *Ill.*
 Roseland, Luther M., *Ill.*
 Rowland, Thomas Jefferson, *Ark.*
 Sheetz, Roscoe Martin, *Ill.*
 Skinner, Claud Wm. Harris, *N. S.*
 Shoore, Leo Abraham, *Ill.*
 Smith, George Edwin, *Ill.*
 Stamp, Joseph William, *Ind.*

Standar, William Albert, *Mich.*
 Stenborg, Jno. Adolph A., *Minn.*
 Swords, Collins Ward, *La.*
 Tull, Allison Lee, A.B., *Ill.*
 Tutte, Merlin Harrison, *Mich.*
 Ulvestad, George Elmer, *Minn.*
 Unseitig, Clyde, *Ill.*
 Urbanowicz, Henry John, *Ill.*
 *Utendorfer, George Wilbur, *Minn.*
 *Van Demark, Frank Ervin, *S. D.*
 Vaughan, Charles Homer, *Mich.*
 Vyverberg, Arnold Elmer, *Iowa.*
 Young, Roy Mercer, *Ill.*

SPECIAL STUDENTS.

Barlow, Harry Edgar, *Pa.*
 Bates, Lewis George, *Pa.*
 Blogg, Joseph P., *Ariz.*
 Burdick, Warren Root, *Ill.*
 Collins, Thomas James, *Mo.*
 Crook, H. R., *Wash.*
 Dalrymple, John Hamilton, *D.D.S., Australia.*
 Elder, Charles M., *Iowa.*
 English, Charles H., *Nebr.*
 File, A. H., *Ill.*
 Huther, William F., *Ohio.*
 Irons, Charles Glenn, *W. Va.*
 Jensen, Harold B., *Minn.*
 Langton, George Atherton, *Utah.*

Leonharat, Paul A., *Ark.*
 Lott, D. Webster, *Ill.*
 Lounsbury, C. R., *Iowa.*
 Molander, Charles O., *Ill.*
 Prindle, Arthur B., *Wis.*
 Robinson, E. N., *Ill.*
 Schmidt, Harry, *Iowa.*
 Sexsmith, C. W., *Ind.*
 Sollenberger, H. N., *Ohio.*
 Stark, Russell H., *Ill.*
 Tapp, Ralph W., *Nebr.*
 Thompson, Oscar C., *Ill.*
 Tigerstedt, Severin Vandalia G., *Finland.*
 Wideman, Burt W., *Iowa.*

POST-GRADUATES.

Ballard, John Lewis, *D.D.S., Nebr.*
 Barnfield, William Hugh, *D.D.S., Ill.*
 Blomberg, Ernst, *Sweden.*
 Dormon, William Barrow, *D.D.S., Ark.*
 Duncan, John Kennedy, *D.D.S., Wash., D. C.*
 Gates, Hanna D., *D.D.S., Iowa.*
 Grosby, Herman Garzelli, *M.D., Ph.D., Mo.*
 Harris, Madison Curtis, *D.D.S., Oregon.*
 Henderson, Frank Beckett, *D.D.S., Kas.*
 John, Robert McCormick, *D.D.S., Ill.*
 Kulander, Henry, *D.D.S., Iowa.*
 Lamby, Nils Iwan, *Sweden.*
 Lemieux, Louis N., *D.D.S., L.D.S., Canada.*

Lynch, Homer Marion, *D.D.S., Ga.*
 McCrummen, Farrar, *D.D.S., Ala.*
 May, Reuel, *D.D.S., Miss.*
 O'Connell, Thomas Wm., *L.D.S., Canada.*
 Ogilvie, Robert Adam, *D.D.S., N. D.*
 Prenske, William Samuel, *D.D.S., N. Y.*
 Robinson, Frank Sidney, *D.D.S., Fla.*
 Shaw, Alexander Lester, *L.D.S., India.*
 Snyder, James Berd, *D.D.S., Ohio.*
 Stansbery, Claudius J., *D.D.S., Wash.*
 Walker, William Gardner, *D.D.S., Tenn.*
 Welch, Frank Morton, *D.D.S., Ind.*

*Did not complete course.

RECAPITULATION OF STUDENTS BY STATES AND COUNTRIES.

States or Countries.	Seniors.	Juniors.	Freshmen.	Spec'l's	Post. Grad.	Total.
Alabama	.....	.....	.....	.....	1	1
Argentina	1	.....	.....	.....	.....	1
Arizona	.....	.....	.....	1	.....	1
Arkansas	.....	.....	1	1	1	3
Australia	3	4	2	1	.....	10
Austria	1	.....	.....	.....	.....	1
British Columbia	1	.....	.....	.....	.....	1
California	1	1	.....	.....	.....	2
Canada	3	3	4	.....	2	12
China	.....	.....	1	.....	.....	1
Costa Rica	1	.....	.....	.....	.....	1
District of Columbia	.....	.....	.....	.....	1	1
Egypt	.....	1	.....	.....	.....	1
England	.....	1	1	.....	.....	2
Finland	.....	.....	.....	1	.....	1
Florida	.....	.....	1	.....	1	2
Georgia	.....	.....	.....	.....	1	1
Germany	.....	.....	1	.....	.....	1
Greece	.....	1	.....	.....	.....	1
Hawaii	.....	.....	1	.....	.....	1
Illinois	28	32	35	7	2	104
India	1	1	.....	.....	1	3
Indiana	1	3	4	1	1	10
Iowa	16	13	7	4	2	42
Ireland	.....	1	.....	.....	.....	1
Japan	1	.....	1	.....	.....	2
Kansas	3	1	1	.....	1	6
Louisiana	1	.....	1	.....	.....	2
Massachusetts	.....	1	.....	.....	.....	1
Mexico	.....	.....	1	.....	.....	1
Michigan	6	3	3	.....	.....	12
Minnesota	3	3	4	1	.....	11
Mississippi	.....	2	.....	.....	1	3
Missouri	3	1	2	1	1	8
Montana	1	.....	.....	.....	.....	1
Nebraska	1	3	.....	2	1	7
New York	1	2	.....	.....	1	4
New Zealand	1	.....	.....	.....	.....	1
North Carolina	.....	1	1	.....	.....	2
North Dakota	1	1	4	.....	1	7
Ohio	.....	1	1	2	1	5
Oklahoma	.....	.....	1	.....	.....	1
Oregon	3	.....	.....	.....	1	4
Pennsylvania	.....	.....	1	2	.....	3
Russia	.....	.....	1	.....	.....	1
South Dakota	5	5	4	.....	.....	14
Sweden	.....	1	1	.....	2	4
Tennessee	.....	1	.....	.....	1	2
Texas	1	2	2	.....	.....	5
Turkey	1	.....	.....	.....	.....	1
Utah	3	2	.....	1	.....	6
Vermont	.....	.....	1	.....	.....	1
Washington	2	1	2	1	1	7
West Virginia	.....	.....	.....	1	.....	1
Wisconsin	7	9	15	1	.....	32
Total	101	101	105	28	25	360

THE ALUMNI ASSOCIATION OF NORTHWESTERN UNIVERSITY DENTAL SCHOOL.

OFFICERS FOR 1909-1910.

DR. J. P. SMITH, Chicago..... President
DR. L. W. STRONG, Chicago..... Vice-President
DR. P. B. D. IDLER, Chicago..... Secretary-Treasurer

EXECUTIVE COMMITTEE.

DR. C. A. YOUNG, Chairman, 9138 Commercial Ave., South Chicago,
Ill.

DR. J. A. DINWIDDIE, Lowell, Indiana.

DR. A. D. BLACK, Marshall Field Bldg., Chicago.

EDITORIAL STAFF OF THE NORTHWESTERN DENTAL JOURNAL.

G. V. BLACK, M.D., D.D.S., Sc.D., L.L.D., Supervising Editor.

CHARLES R. BAKER, D.D.S., Editor.

The annual clinics will be held Tuesday, June 13, 1910, at the University Building.

Through the medium of the Journal we have aroused a keener interest among the members of our Association.

All are requested to send in material of interest. The Journal will serve as a medium for the exchange of friendly greetings. A new interest will thus be aroused, and still better work done and more accomplished by our Association in the future.

All members of the Association in good standing will receive the Journal. The payment of their dues, annually, fifty cents, secures the Journal without additional cost.

Any graduate of the Northwestern University Dental School may become a member of the Alumni Association upon payment of the membership fee of one dollar, and fifty cents annually.

We ask that the Alumni will support this undertaking even stronger than in the past, and coöperate earnestly with the officers of the Association and the Journal staff in making our official publication a still greater success.

For any information regarding the Association, address the secretary,

DR. P. B. D. IDLER,

Secretary-Treasurer,

209 State Street, Chicago.

For information regarding the *School*, write DR. C. R. E. KOCH,
87 Lake Street, Chicago.

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL

Advantageously located on the South Side of Chicago. Adjoining the school is Wesley Hospital, containing 225 beds. Nearby are Mercy and St. Luke's Hospitals, with 400 beds each. In addition to these closely associated hospitals, ward-walks and clinics are given in People's, Provident, Chicago Lying-in, and Cook County Hospitals. A new Dispensary, one of the finest structures of its kind. Well equipped laboratories, instruction to small sections in order to secure individual training, a graded curriculum, high scholastic requirements.

For Catalogue and Information, address

THE REGISTRAR, 2431 Dearborn Street
CHICAGO, ILLINOIS

NORTHWESTERN UNIVERSITY SCHOOL OF PHARMACY

Practical Courses for the Training of Pharmacists

Special Courses for Food, Drug, and Sanitary
Chemists

STRONG FACULTY, COMPLETE EQUIPMENT
AND SOUND CURRICULUM

Next Term Begins September 19, 1910

Send for Bulletin

87 LAKE STREET : : : CHICAGO, ILLINOIS

University Directory

ABRAM WINEGARDNER HARRIS
Sc. D., LL. D., President

Special announcements of the several departments of the University may be had on application. Address inquiries to the following:

COLLEGE OF LIBERAL ARTS	the Registrar
University Hall, Evanston, Illinois	
MEDICAL SCHOOL	the Secretary
2421-2437 Dearborn Street, Chicago	
LAW SCHOOL	the Secretary
Northwestern University Building, Chicago	
SCHOOL OF PHARMACY	the Secretary
Northwestern University Building, Chicago	
DENTAL SCHOOL	the Secretary
Northwestern University Building, Chicago	
SCHOOL OF MUSIC	the Secretary
Music Hall, Evanston, Illinois	
COLLEGE OF ENGINEERING	the Registrar
Swift Hall of Engineering, Evanston, Illinois	
SCHOOL OF COMMERCE	the Secretary
Northwestern University Building, Chicago	
EVANSTON ACADEMY	Evanston, Illinois
Nathan Wilbur Helm, A. M., Principal	
GRAND PRAIRIE SEMINARY	Onarga, Illinois
Henry Hoag Frost, A. B., President	
ELGIN ACADEMY	Elgin, Illinois
George Newton Sleight, A. B., B. Pd., Principal	

For general information address the President, 87 Lake Street, Chicago, Illinois.



3 0112 105753450

NORTHWESTERN UNIVERSITY BULLETIN is published by the University weekly during the academic year at Evanston, Illinois. Entered at the postoffice at Evanston, Illinois, as second class mail matter under the act of Congress of July 16, 1904.

VOLUME X

JUNE 28, 1910

NUMBER 20
